

THE CHARACTERISTICS OF BUSINESS ORGANIZATION IN THE ADOPTION OF WEBSITE IN MELAKA, MALAYSIA

**Haslinda Musa, Saharulasyikin Haris, Fararishah Abdul Khalid,
Juhaini Jabar, Ahmad Rozelan Yunus**

¹Faculty of Technology Management and Technopreneurship
Universiti Teknikal Malaysia Melaka (UTeM)
Melaka, Malaysia.

Corresponding Email: haslindamusa@utem.edu.my

ABSTRACT

In the era of globalization today, websites have been known to be something that was necessary for most of the business organizations. However, there are still existences of business organization that are not ready to adopt websites as one of their marketing strategy. Hence, the purpose of this research is to identify the characteristics of business organization that influence the adoption of website. To complete this research, 200 business organizations has been chosen as the respondent yet only 100 of them had responded. Survey and questionnaire has been distributed and quantitative analysis was used to analyse the data collected. Based on the final results, among all of the independent variables (a. Organization size, b. Employer support and c. Skills of Employee), only variable Organization size is significant and therefore it is positively related to Information Technology (Website).

INDEX TERMS: *Bussiness organization, information technology*

I. INTRODUCTION

In the present time and era, Information Technology (IT) is an unavoidable medium that most of the business organization has applied into their supply chain systems. It is undeniable that IT has become extremely important to one country's economic development (Nasco *et al.* 2008, Kendall *et al.* 2006). Even though IT adoption has been popularly been studied by most of practitioners and academicians for more than a decade, however the topic about website has not much being mentioned.

Poorangi *et al.* (2013) also emphasized that the contribution of business organization are crucial towards national economics' development, especially in the context of rapid growth which has been witnessed

in the globe. No matter how much competitive advantage that one organization able to obtain from having interactive websites for their business, there are still some smaller sized of business organization has difficulty in adopting IT due to limited resources (Street and Meinster, 2004).

Besides that, it is also the fact that most studies that relevant to IT adoption in business organizations of developing countries are descriptive, and lacks of support from theoretical context (Stylianou *et al.*, 2003 and Wresch, 2003). Given the situation of globalization and growing competition in the market place, business organizations need to use information technology (IT) wisely and think out of the box to win in the market place. However, not all business organizations implement this strategy in their marketing strategy may be because of the characteristics of the business organizations itself. Therefore, it is necessary for this study to be conduct in order to examine the characteristics of business organization that is positively influence the adoption of website into their system. The present study proposed and tested a model explaining the characteristics of business organizations in adopting websites in Melaka.

II. THEORETICAL BACKGROUND

Based on the Diffusion of Innovation (DOI) which has been founded by Rogers (2003), individuals are seen as having different angles of willingness to adopt innovation, including information technology (websites). Thus, it is generally being observed that the portion of people that adopting an innovation is approximately normally being handed out over time. Information technology like website should help to reflect the quality efforts made by the organization, because it creates an important connection with customers or the public. Modern websites show a significant range of aspects, complexity of structure and diversity of offered services (Kappel *et al.*, 2006).

Organizational Size

Based on the statement of Rogers (2003), he defined that organizational size is one of the characteristics of organizational structure that will lead to the adoption of innovation. The size of an organization is usually measured by the number of employees in the organization. Previous studies have offered clashing evidence about the size, complexity and innovation of the organization. Some of the researcher also suggested that larger organizations may be more suitable to pursue innovation

(Baldridge and Burnham, 1975). Organizational size often portrays the scale of the work being conducted hence been used as an essential variable that affects numerous organizational aspects as well as overall organizational performance. In general, with the all the benefits of adopting website and with more structured formal position in organisation, more staff would prefer using the information technology (website) in their daily task at work. This leads to the first hypothesis of this research:

H1: Organizational size is positively related to information technology (website) adoption for business organization.

Employer Support

Employer support is one of important elements to an organization especially in doing the decision making. In an organization, employer is people who have the authority and responsibility to achieve ultimate goal of the organization. They will determine what needs to be done and how to make it. There are several studies such as organizational level Website and IT adoption, both focusses on the characteristics of organization (Hackler & Saxton, 2007; Zorn *et al.*, 2011). To support the organization, the leader may use Web Analysis and Measurement Inventory Questionnaire (WAMMI), one of the tool used by the top management to support the website used at all level of the organization. Based on these views, the second hypothesis is formulated:

H2: Employer support is positively related to information technology (website) adoption for business organization.

Employee Skills

Based previous research of Pianta (2004), where he found that the tendency of Information Communication technology (ICT) adoption by the employees will result in the positive change towards organization, in which as a result to increase polarization in the wage structure and employment. However, there are other studies which argue that new technologies are adopted more extensively in organization with more skilled workers, but do not increase the demand for skills (Doms *et al.*, 1997). The model above has not being tested in context of Malaysia. Hence, the third hypothesis is formulated:

H3: Skill of employee is positively related to information technology (website) adoption for business organization.

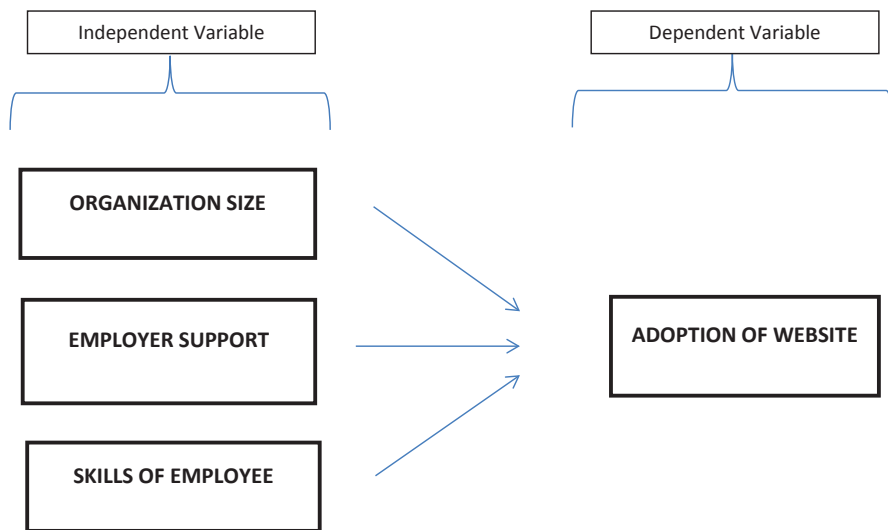


Figure 2.1: Research Model

III. RESEARCH METHODOLOGY

In this study, questionnaires have been distributed to 200 samples of respondents which are business organization that located within Melaka, Malaysia. However, only 100 from the sample have responded to the survey. The use of surveys permit the researcher to study more variables at one time than is typically possible in laboratory or field experiments, whereas data can be collected about real world environments. Questionnaire is used in this research to elicit information and to get feedback from business organizations about the website adoption.

Questionnaire is used in this research to elicit information and to get feedback from business organizations about the website adoption. Questionnaire encompassed of a series of questions for the purpose of gathering data or information from potentially a large number of respondents. One of the advantages of questionnaire over other types of data gathering methods is that it is inexpensive and does not require as much effort from the questioner as compared to face-to-face survey or tale-conversation type of survey.

IV. RESULTS AND DISCUSSIONS

Respondent Result

The result of the respondents is shown in Table 4.1. The results include the frequency of business organizations in adopting the use of website, annual sales revenue, number of (employees, department, IT training in a year, employees have expertise in IT and employees have experience in IT), amount of organization spent for IT in a year and basic educational level for the business organization.

Table 4.1: The Respondents Result

	Frequency	Percentage (%)
Adoption of website		
No	17	17
Yes	83	83
Have branch or not		
No	44	44
Yes	56	56
Annual sales revenue		
Below than RM 500 thousand	37	37
RM 501 thousand to RM 1 million	23	23
RM 1 million to RM 100 million	15	15
RM 101 million to RM 500 million	7	7
RM 501 million and above	18	18
Number of employees		
Below than 50 employees	57	57
51 employees to 200 employees	16	16
201 employees to 500 employees	7	7
501 employees to 1000 employees	0	0
1001 employees and above	20	20
Number of department		
Below than three departments	28	28
Four to five departments	33	33
Six to seven departments	10	10
Eight to nine departments	13	13
Ten departments and above	16	16
Amount of organization spent for IT in a year		
Below than RM 1000	26	26
RM 1001 to RM 1500	21	21
RM 1501 to RM 2000	16	16
RM 2001 to RM 3000	0	0
RM 3001 and above	37	37
Number of IT training in a year		
None	17	17
Once a year	42	42
Twice a year	17	17
Three times a year	11	11
More than four times	13	13
Basic employees educational level		
Sijil Pelajaran Malaysia (SPM)	60	60
Diploma	24	24
Bachelor of Degree	16	16
Master	0	0
Doctor of Philosophy (PhD)	0	0
Number of employees have expertise in IT		

Below than 5 employees	46	46
6 employees to 10 employees	31	31
11 employees to 15 employees	4	4
16 employees to 20 employees	3	3
21 employees and above	16	16
Number of employees have experience in IT	46	46
Below than 5 employees	29	29
6 employees to 10 employees	3	3
11 employees to 15 employees	6	6
16 employees to 20 employees	16	16
21 employees and above		

Out of 100 respondents that have been collected, most of the business organizations has adopted website into their business (83%) and the rest (17%) are not yet adopt websites into their business. Half of them are firms that has branch for them within Malaysia and most of them are stands for SME, which is also why most of the respondents has below 5 of employees.

Reliability test

The test for reliability is obtained from the value of Cronbach alpha which is shown in Table 4.2 below. All the alpha values were above 0.70 except forthe third independent variable which is skills of employee 0.638, showing that the constructs had internal consistency reliability (Bagozzi, 1994: pg 18).

Table 4.2: Cronbach Alpha Value

Variables	Cronbach Alpha
Organization size	0.743
Employer support	0.732
Skills of employees	0.638

Multiple Regression

Table 4.3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.447 ^a	.200	.175	.34290

a. Predictors: (Constant), Skills of employee, Organization size, Employer support

b. Dependent Variable: Adoption of website

Based on the Model Summary in Table 4.3 above, it shows the R value (correlation coefficient) between independent variables (organization size, skills of employee and employer support) and the dependent variables (adoption of website) has resulted R value of 0.447, which indicates medium correlation between independent variables and a

dependent variable. The result above also shows that R square is equal to 0.200, which means that 20% of the adoption of website is explained by the independent variables. In other words, the organization size, skills of employee and employer support contribute 20% to the adoption of website in business organization. While the other 80% is contributed to the other independent variables which has not been discussed in this research.

Table 4.4: ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	2.822	3	.941	8.001	.000 ^a
Residual	11.288	96	.118		
Total	14.110	99			

a. Predictors: (Constant), Skills of employee, Organization size, Employer support

b. Dependent Variable: Adoption of website

As shown in the Table 4.4 above, ANOVA assessed the statistical significance of the results. This tests the null hypothesis that multiple R in the population equals 0. The model of this research reaches statistical significance (Sig.= 0.000; this really means $p < 0.005$). Hence, this test supports all the hypothesis and the research is significant.

Table 4.5: Multiple Regression Analysis

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.471	.092		16.041	.000
	Organization size	.175	.053	.460	3.284	.001
	Employer support	-.075	.043	-.260	-1.753	.083
	Skills of employee	.097	.044	.248	2.202	.030

The multiple regression equation:

$Y, \text{ adoption of website} = 1.471 + 0.175(\text{organization size}) - 0.075(\text{employer support}) + 0.097(\text{skills of employee})$

The result for Multiple regression analysis as shown in Table 4.5 above revealed that the adoption of website is giving maximum wattage to "organization size", "skills of employees" and less importance on "employer support" for the business organization. Based on the equation above, the value of Y, adoption of website will decrease if there is no independent variable (organization size, employer support and skills of employees) which is 1.471. However, the value of Y will

increase by 0.175 if there has organization size variable and 0.097 if there has skills of employees variable, but the value of Y will decrease by (0.075) if there has employer support variable.

Table above also shows that, the variables for organization size and skills of employees are truly happening or truly contribute (significance) to the adoption of website for business organization because the sig. Value is 0.001 and 0.030 respectively, which are less than 0.05. While the variables for employer support is just coincidence has happened or not truly contribute (not significance) to the adoption of website for business organization because the sig. value are 0.830 which is more than 0.05.

Refer to the Coefficients table above; the researcher may see that organization size is the strongest unique contribution to explaining the dependent variable which has the highest value of Beta, β (0.460) when the variance explained by all other variables in the model is controlled for.

V. CONCLUSION

This research provides a better understanding of how the characteristics of the organization affect the adoption of website. This research organization around the Malacca city were used as a medium to know the characteristics of business organization determinant in adoption of website. Besides, it has indicated that small organization also use information technology (IT) like website to promote their organizations to others or customers.

Based on the findings, all of independent variables (Organization size, Employer Support, and Skills of employee) in characteristics of organization have a significant effect on adoption of website. Characteristic of organization is very important criteria for a company to identify to adopt IT or not. As a conclusion, through this research the researcher may find out that the characteristic of organization is one of elements give impact in the adoption of website.

ACKNOWLEDGEMENT

This work is supported by Faculty of Technology Management and Technopreneurship, Universiti Teknikal Malaysia Melaka.

REFERENCE

- Baldrige, J. V., & Burnham, R. A. (1975). Organizational innovation: Individual, organizational, and environmental impacts. *Administrative science quarterly*, 165-176.
- Beatty, R. C., Shim, J. P., & Jones, M. C. (2001). Factors influencing corporate web site adoption: A time-based assessment. *Information & Management*, 38, 337-354.
- Boynton, A.C., Zmud, R.W. and Jacobs, G.C. (1994). "The influence of IT management practice on IT use in large organizations", *MIS Quarterly*, Vol. 18 No. 3, pp. 299-318.
- Corder, K. (2001). Acquiring new technology: Comparing nonprofit and public sector agencies. *Administration & Society* 33: 194-219.
- Den Hartog, D.N. and Koopman, P.L. (2001). "Leadership in organizations", in Anderson, N., Ones, D.S., Kepir-Sinangil, H. and Viswesvaran, C. (Eds), *PsyHandbook of Industrial, Workand Organizational Chology*, Vol. 2, Sage, London.
- Doms, M., Dunne, T., and Trotske, K. (1997). "Workers, Wages, and Technology". *Quarterly Journal of Economics*, Vol. 112, pp. 253-89.
- Forouzan, B. A. (2007). Data Communications and Networking. 4th edition. New York: Mc Graw Hill.
- Grant, R.M. (1996). "Toward A Knowledge-Based Theory Of The Firm", *Strategic Management Journal*, Vol. 17, Winter, special issue, pp. 109-22.
- Hackler, D. and Saxton, G. D. (2007). The strategic use of information technology by nonprofit organizations: Increasing capacity and untapped potential. *Public Administration Review* 67: 474-87.
- Kappel, G., Proll, B., Reich, S. and Retschitzegger, W. (2006). Web Engineering: *The Discipline of Systematic Development of Web Applications*, Wiley, Hoboken, NJ.
- Kendall, K. E., Kendall, J. E., and Kah, M. M. (2006). Formulating Information and Communication Technology (ICT) Policy Through Discourse: How Internet Discussions Shape Policies on ICTs for Developing Countries.
- Leonard, D. (1995). Wellsprings of Knowledge: Building and Sustaining the Source of Innovation, Harvard Business School Press, Boston, MA.
- Nasco, S. A., Toledo, E. G., and Mykytyn, P. P. (2008). Predicting Electronic Commerce Adoption in Chilean SMEs. *Journal of Business Research*. Vol. 61 No.6, pp. 697-705.
- Nonaka, I. (1994). "A Dynamic Theory of Organizational Knowledge Creation", *Organization Science*, Vol. 5 No. 10, pp. 14-37.

- Poorangi, M. M. and Khind, D. (2013). Strategic Alliance on Malaysia SMEs to Compete Globally. Endogenous and Exogenous Prospective. *Actual Problem of Economics*. Vol. 3 No. 141, pp. 407-415.
- Rogers, E. M. (1995). *The Diffusion Of Innovations*. New York, NY: Free Press.
- R. Benbunan-Fich. (2001), "Using Protocol Analysis to Evaluate the Usability of a Commercial Website", in *Information & Management*, Vol. 39, No. 2, pp. 151-163.
- Scott, S.G. and Bruce, R.A. (1994). "Determinants Of Innovative Behavior: A Path Model Of Individual Innovation In The Workplace", *Academy of Management Journal*, Vol. 38, pp. 1442-65.
- Street, C. T., and Meister, D. B. (2004). Small Business Growth and Internal Transparency: The Role of Information Systems. *MIS Quarterly*, Vol. 28, No. 3, pp. 473-506.
- Stoel, L. (2002), "Retail Cooperatives: Group Size, Group Identification, Communication Frequency And Relationship Effectiveness", *International Journal of Retail & Distribution Management*, Vol. 30 No. 1, pp. 51-60.
- Stylianou, A. C., Robbins, S. S., and Jackson, P. (2003). Perceptions and Attitudes about E-Commerce Development in China: An Exploratory Study. *Journal of Global Information Management*, Vol. 11, No. 2, pp. 31-47.
- WAMMI – Website Analysis and Measurement Inventory (Web Usability Questionnaire),
<http://www.ucc.ie/hfrg/questionnaires/wammi/index.html> (Visited on 14 December 2013)
- Wresch, W. (2003). Initial E-Commerce Efforts in Nine Least Developed Countries: A Review of National Infrastructure, Busines Approaches, and Product Selection. *Journal of Global Information Management*, Vol. 11, No. 2, pp. 67-78.
- Hong, Y. H., Teh, B. H., & Soh, C. H. (2014). Acceptance of Smart Phone by Younger Consumers in Malaysia. *Asian Social Science*, 10(6), p34.
- Salleh, F., Yaakob, N. H. B., Arumugam, N., Yusof, N. B., & Ali, A. A. R. E. B. (2012). Perceptions of IT Knowledge among SMEs Operators in Malaysia. *Asian Social Science*, 8(10), p68.
- Winnie, P. M. W. (2014). The Effects of Website Quality on Customer e-Loyalty: The Mediating Effect of Trustworthiness. *International Journal of Academic Research in Business and Social Sciences*, 4(3), 19-41.
- Zorn, T. E., Flanagan, A. J., & Shoham, M. D. (2011). Institutional and noninstitutional influences on information and communication technology adoption and use among nonprofit organizations. *Human Communication Research*, 37(1), 1-33.